

Virginia Department of Health
Private Well Regulations Workgroup
September 8, 2016, Meeting Summary

Loudoun County Government Center
1st Floor, Lovettsville Room
1 Harrison Street SE
Leesburg, Virginia 20175

List of Attendees:

Private Well Regulations Workgroup Members

Scott Bruce – DEQ	Vincent Day – VAIPG	Jon Richardson – VDH
Ben Spence – VWWA	Dennis Duty – Manufacturer	Wayne Fenton – VWWA
Erin Ling – VAHWQP	Mark Granville-Smith – HBAV	Scott Fincham – VACo
Bob Marshall – OSE	Craig Nicol – DEQ	

VDH Staff and Members of the Public

Lance Gregory – VDH Whitney Wright – VDH Jerry Franklin - VDH

Administrative

1. Welcome.

Mr. Gregory welcomed the workgroup and thanked the members for their willingness to participate. Mr. Gregory noted that he had reached out to the Virginia Department of Mines, Mineral, and Energy, the United States Geological Survey, and professional engineers to invite them to participate in the workgroup.

2. Introduction of Workgroup Members.

Workgroup members then introduced themselves.

3. Approve agenda.

The workgroup reviewed and approved the draft agenda.

4. Review Summary from August 4, 2016, meeting.

Mr. Gregory asked whether there were any comments or revisions to the August 4, 2016, meeting summary. Workgroup members did not have comments on the summary.

General Information

1. Purpose of the Private Well Regulations Workgroup.

Mr. Gregory commented that the purpose of the workgroup is to assist VDH in develop of proposed revisions to the Private Well Regulations (12VAC5-630-10 et seq., the Regulations).

2. Ground rules for workgroup meetings.

Mr. Gregory reiterated the ground rules for the workgroup as discussed during the August 4, 2016, meeting.

Discussion

1. Review list of issues; categorization.

Mr. Gregory discussed a draft list of issues based on comments from the previous meeting and recommended revisions from the 2003 workgroup. In addition to summarizing the issue, Mr. Gregory also provide a draft analysis regarding whether the issues would require statutory, regulatory, or policy changes to address. Mr. Gregory asked workgroup members whether there were additional items to add to the list of issue, or comments on the draft analysis regarding statutory, regulatory, or policy changes. Workgroup members provided the following additional items for inclusion on the list of issues:

- In regards to the recommendation to require abandonment of contaminated wells, need to clarify whether the well is the source of contamination or whether the well is being contaminated by another source.
- Bring variances that are frequently granted into the regulations.
- Provide consistency with the groundwater management area requirements for global positioning system (GPS) locations on the uniform water well completion report.
- Include procedures for reclassification of wells from IIIC to IIIB wells.
- Need to address timing issues for collection of GPS; drillers are putting GPS into VA Hydro but then VDH is also collecting a GPS point at a later time.
- Also allow certified professional geologist to provide private well evaluations.
- Address inconsistency between local health departments regarding interpretation of agricultural zones.
- Review the separation distance from repair drainfield to an existing well.
- Review water quantity standards. How is well yield estimated?
- How would contamination be defined, and how would VDH enforcement proposed requirement for well abandonment (e.g. if owner self-reports a positive bacteriological sample are they required to abandon the well.)

2. Abandonment issues and recommendations.

Next the workgroup discussed issues related to well abandonment. Regarding the need to provide clarification of abandonment requirements, the workgroup provided the following feedback:

- Bored well abandonment should include a mix rate, for example 1/1/2, the same as standards for grouting the well.

- Some suggestions that grout materials should not contain coal combustion products. However, other suggested that coal combustion products would be bound in the material, would be inert, and would meet beneficial reuse.
- Clean fill mean not containing source contaminants.
- Could require that clean fill be impermeable material.
- Use the same grout requirements as used for construction.

Mr. Gregory commented that he would review whether VDH has the statutory authority to require abandonment of contaminated or dry wells. He mentioned that in previous instances, staff have commented that VDH would need additional statutory authority to require abandonment.

Mr. Gregory also agreed to share the abandonment requirements for the Office of Drinking Water, and requirements from other stated with the workgroup.

The workgroup then discussed revised abandonment procedures for shallow wells, geotechnical and exploration wells, and grout mixtures. Mr. Gregory noted that it was unclear whether VDH has the authority to regulate geotechnical and exploration wells. The workgroup provided the following feedback:

- Issue with geotechnical wells is that there can be hundreds of wells drilled for a project, and those wells are not being properly grouted when they are abandoned. The wells go through different aquifers.
- How do you define a geotechnical well (e.g. how deep do you have to go to be considered a well)?
- Does the Virginia Department of Transportation or neighboring states have any data regarding from improperly grouted wells?
- Could VDH create a method for abandoning those wells, but not require permitting. Create a standard/best management practice that you could enforce if not meet.
- Is there an ASTM standard.

Mr. Gregory commented that he would review whether VDH has authority to include geotechnical wells in the Regulations, and whether there are examples from other states.

3. Easement issues and recommendations.

Mr. Richardson shared his experience with issues that result from not requiring an easement when one person owns both properties and recommended requiring an easement anytime a well is on another property than the property it will serve. Mr. Gregory asked whether including the single ownership language contained in the Sewage Handling and Disposal Regulations would be helpful.

4. Permit expiration issues and recommendations.

The workgroup discussed a recent legislative effort to modify the permit expiration date for private wells. The bill was laid on the table. Mr. Gregory commented that given the previous

effort, it would likely require a legislative action to revised the permit expiration timeframe for private wells.

5. Issues of local concern; Piedmont/Valley of Northern Virginia.

- Mud filled voids in karst geology. Local issue where house is supported by a mud filled void, driller installed a well nearby and pumps out the mud damaging the home.
- Geotechnical wells in karst would be the biggest concern.
- In the Piedmont, corrosive waters connection to lead leaching. Could connect testing for lead to physiographic province. Would need sampling protocols.
- Need follow up samples in karst without chlorination.
- Not testing for chlorine residual.

Mr. Gregory commented that he would reach out to local environmental health managers prior to the next meetings to identify issues of local concern.

Adjourn

**Virginia Department of Health
Private Well Regulations Workgroup
Tentative Agenda**

Date: September 8, 2016
Time: 10 am to 2 pm
Primary Location: Loudoun County Government Center
1st Floor, Lovettsville Room
1 Harrison Street SE
Leesburg, Virginia 20175

Administrative (30 minutes)

5. Welcome. (5 minutes)
6. Introduction of Workgroup Members. (10 minutes)
7. Approve agenda. (5 minutes)
8. Review Summary from August 4, 2016 meeting. (10 minutes)

General Information (10 minutes)

3. Purpose of the Private Well Regulations Workgroup. (5 minutes)
4. Ground rules for workgroup meetings. (5 minutes)

Discussion (20 minutes)

6. Review list of issues; categorization. (20 minutes)

Break (5 minutes)

Discussion Continued (60 minutes)

7. Abandonment issues and recommendations. (45 minutes)
8. Easement issues and recommendations. (5 minutes)
9. Permit expiration issues and recommendations. (10 minutes)

Break (5 minutes)

Discussion Continued (75 minutes)

10. Licensure and evaluations for permits. (10 minutes)
11. Construction standard issues and recommendations. (65 minutes)

Break (5 minutes)

Discussion Continued (30 minutes)

12. Issues of local concern; Piedmont/Valley of Northern Virginia. (30 minutes)

Adjourn

**Virginia Department of Health
Private Well Regulations Workgroup
Summary of Issues Identified by Workgroup and Previous Draft Revisions**

Issue	Code/ Regulations/ Policy Revision	Recommended Revision(s)	Fast-track or NOIRA	Economic Impact
Abandonment				
Clarify abandonment requirements.	Regulations/Policy			
Revise abandonment procedures (shallow wells, geotechnical and exploration wells, grout mixtures).	Code/Regulations			
Reduced setbacks from abandoned wells (e.g. separation distance from posed septic system).	Regulations			
Required abandonment of contaminated wells.	Code			
Consistency with Other Agencies/Offices/Regulations				
Siting a well downslope of a septic system.	Regulations			
Inconsistent implementation of regulations.	Policy			
Need to update implementation manual.	Policy			
Consistency with other, sometime more stringent, regulations (e.g. Ground Water Management Areas – screening and GPS requirements).	Regulations			
Bring GMPs into the regulations.	Regulations			
Add substantial compliance (similar to Sewage Handling and Disposal Regulations).	Regulations			
Construction Standards				
No emphasis on construction of the well; proper grouting and sealing.	Regulations/Policy			
Revise grouting requirements for downslope siting of a well.	Regulations			
Alternate grouting procedures for closed-loop geothermal.	Regulations			
Requirement for mechanical seals/packers.	Regulations			

Add substantial compliance.	Regulations			
Separate construction standards based on geology.	Regulations			
Effects of corrosive water on galvanized drop pipe.	Code/Regulations			
Proper sealing of PVC casing at interface with bedrock.	Regulations			
Revised construction standards for Class IIIA wells.	Regulations			
New types of Class IV wells (e.g. IVA)	Regulations			
Standards for converting a Class IV well to a Class III.	Regulations			
Requirement for lead-free components.	Code/Regulations			
Standards for product approvals (e.g. WSC, NSF).	Regulations			
Revised standards for wells in low areas.	Regulations			
Revisit construction standards exemptions for Class IIIC and Class IV wells.	Regulations			
Add screening requirements (Coastal Plain region).	Regulations			
Revised grouting procedures for inner and outer casings.	Regulations			
Customer Service				
LHD requiring new permit and fee for relocating well.	Regulations/Policy			
Consistency in design approach; VDH and private sector not on the same page.	Policy			
Need more flexibility with permits.	Regulations/Policy			
Getting permits in a timely manner.	Code/ Regulations/ Policy			
Inconsistent implementation of the regulations.	Policy			
Need to update the implementation manual.	Policy			
Develop guidelines for real estate inspections.	Code/Policy			

Provide clear expectations for implementation.	Policy			
Acceptable means for submitting documents to VDH (email, fax, etc.).	Regulations/Policy			
Regulations should not impose an unnecessary economic hardship.	Regulations			
Add substantial compliance.	Regulations			
Recommendations for disinfection when performing maintenance.	Policy			
Easements				
Revise section 340 to require an easement, even if the property owner is the same.	Code/Regulations			
Improve Private Sector Evaluations				
Consistency in design approach; VDH and private sector not on the same page.	Policy			
Private sector designer's permits are difficult to work with; too much unnecessary information.	Policy			
Licensure/Evaluations for Permitting				
Allow drillers to provide wells evaluations for permits.	Code/Regulations			
Acknowledging water well system provider license through the regulations.	Regulations			
Null and Voiding Permits/New Applications and Fees				
LHD requiring new permit and fee for relocating well.	Regulations/Policy			
Consistency in design approach; VDH and private sector not on the same page.	Policy			
Need more flexibility with permits.	Regulations/Policy			
Observation/Monitoring/Geotechnical Wells				
Proper abandonment of geotechnical and exploration wells.	Regulations			
Defining direct push wells.	Regulations			
Defining environmental sampling wells.	Regulations			
Revised exemption of observation and	Regulations			

monitoring wells.				
Create standards for environmental sampling wells.	Regulations			
Permit Expiration				
Separate requirements for well only permits and permits in conjunction with a septic permit; different expiration dates.	Regulations			
Regulatory Oversight				
Grout inspections.	Policy			
Driller notification to LHD for well construction.	Regulations/Policy			
Add substantial compliance.	Regulations			
Revisions to administrative processes (hearings, variances) for consistency with other regulations.	Regulations			
Process requirements for submitting completion reports.	Regulations			
Revised procedures for product reviews and approvals.	Regulations			
Maintenance requirements for wells.	Code			
Required abandonment of contaminated wells.	Code			
Research Needs				
Knowledge gaps in assumptions versus science; research needs.	Code/Regulations/ Policy			
Regulations should not impose an unnecessary economic hardship.	Regulations			
Separation Distances				
Define agricultural zones as relate to setbacks.	Code/Regulations			
Reduced setbacks from abandoned wells.	Regulations			
Revise Table 3.1.	Regulations			
Revised setbacks for downslope siting of wells.	Regulations			
Recommended separation distance from utility lines.	Regulations/Policy			

Create separation distance from inactive septic systems.	Regulations			
Revised separation distance from termite treated structures.	Regulations			
Water Quality				
Improve upon the water quality parameters in section 370 (e.g. North Carolina sampling requirements).	Code/Regulations			
Improve procedures regarding chlorination; chlorination related to pH.	Regulations			
Develop sampling protocols for private wells.	Regulations/Policy.			
Define contamination of a private well.	Code/Regulation			
Regulation of water haulers.	Code			
Required use of lead-free components.	Code/Regulations			
Effects of corrosive water on galvanized drop pipe.	Code/Regulations			
Requirements for quality of water used in well construction process.	Regulations			
Required abandonment of contaminated wells.	Code			